

REMARKS

Claims 1-23 are pending in this application. Claims 1 and 13 are amended herein to more clearly define the invention. No new matter is added by way of amendment.

IV. Rejection Under 35 U.S.C. § 103

The Examiner rejects claims 1, 3, 6-8, 10-13 and 15-23 under 35 U.S.C. §103(a) as being unpatentable over PCT/US Application WO 99/52973/US 6,605,344 to Ohba et al. (Ohba). These rejections have been carefully considered, but are most respectfully traversed, as more fully discussed below.

As reiterated by the Supreme Court in KSR International Co. v. Teleflex Inc. (KSR), the framework for determining obviousness under 35 U.S.C. §103 is stated in Graham v. John Deere Co., 383 U.S. 1 (1966); MPEP §2141(II). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Supreme Court are as follows:

- (A) Ascertaining the scope and content of the prior art;
- (B) Ascertaining the differences between the claimed invention and the prior art; and
- (C) Resolving the level of ordinary skill in the pertinent art.

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006), stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” Id.

“The prior art references...need not teach or suggest all the claim limitations, however, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art...The gap between the prior art and the claimed invention may not be “so great as to render the [claim] nonobvious to one reasonably skilled in the art.” MPEP 2141(III). In the case at hand, the “gap” between the claims and Ohba is “so great as to render the [claims] nonobvious.”

First, the Applicant incorporates by reference all arguments made previously in support of this application. Next, the Applicant wishes to remind the Examiner that it is improper to take official notice of facts without citing a prior art reference, where the facts

asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. MPEP 2144.03. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. In re Ahlert, 424 F.2d 1088, 1091 (CCPA 1970). Throughout the current Office Action, the Examiner makes official notice of facts that are not capable of instant and unquestionable demonstration as being well-known, especially in an art as esoteric as polymer science. For example, the Examiner alleges on page 6 that “stretch forming laminate sheets into containers is universally known.” While this may be true generally, it is also universally known that not all laminates are able to be stretch formed. The Examiner is still required to show that it would be obvious to stretch form the particular laminate of the claims. On page 10, the Examiner alleges that “one of ordinary skill in the art would have had a reasonable expectation that a film with good barrier properties would still have beneficial barrier properties upon stretching.” Once again, this fact is not capable of instant and unquestionable demonstration. In fact, submitted with this response is a declaration showing a film that does not have good barrier properties after stretching. In fact, that film is a film made according to Ohba. In this response, the Applicant believes that the amendments and arguments made overcome the current rejections. However, if the Examiner issues a further action, the Applicant respectfully requests that all factual allegations be supported by citations to prior art.

Predictability and an expectation of success are required for obviousness. See MPEP 2143.02. Thus, it becomes essential to determine what would have been “predictable” and “expected” about this hypothetical substitution to one skilled in the art. The Applicant maintains that Ohba requires heat treatment, and that heat treatment is not merely an optional embodiment of Ohba. The currently pending claims have been amended to specify that the laminate and/or container have not undergone such heat treatment. Therefore, the Ohba does not teach each and every element of the claims, and in fact teaches away from the claims. Further, the heat treatment of Ohba renders the film not able to be stretch-formed. Filed with this response is a declaration of Kureha scientist Noboru Ohmori (Ohmori). Ohmori prepared two samples of a laminate film as taught in Ohba, and neither film was able to be stretch formed. Because of this, one of ordinary skill in the art would not have had predictability or an expectation of success in forming a stretch-formed laminate without heat treatment, and the claims are not obvious over Ohba.

The Examiner alleges that “Ohba only recites heat treatment as a means to ‘enhance the water resistance and gas barrier properties of the polymer layer’, not that this heat treatment step is ‘inexpensive’ as asserted by applicant.” This is incorrect. In this regard, it is a requirement to consider the purpose of the inventions in Ohba. First, the title of Ohba is “GAS-BARRIER FILMS.” Second, the abstract of Ohba clearly recites the purpose of the invention as a “gas-barrier film [that] exhibits excellent gas-barrier properties.” This is significant to note because an abstract enables the USPTO and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. 37 CFR 1.72; MPEP 608.01(b). Similar language is included in the “Technical Field,” where it further states that the invention is for atmospheres of “high humidity, and which is suitably used in sterilization treatment such as retorting or boiling.” Ohba stresses throughout the specification that the purpose of the film is sterilization applications of high heat and humidity. See column 10, lines 62-65. Column 3, lines 48-51 states that “in order to impart some degree of water-resistance and gas-barrier properties to the polymer layer, at least the polymer layer is preferably subjected to heat treatment,” and column 9 lines 51-54 states that after heat treatment, the polymer layer has the water resistance and excellent gas-barrier properties under high humidity necessary for these applications.

It cannot be disputed that Ohba teaches that the heat treatment is required to achieve the water-resistance and gas-barrier properties. Further, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900 (Fed. Cir. 1984); MPEP 2143.01(V). In this case, it is clear that the purpose of Ohba is to provide a film that exhibits excellent gas-barrier properties, and it is also clear that not heat treating the laminate of Ohba would not produce a film that exhibits excellent gas-barrier properties. In other words, not heat treating the laminate of Ohba would render those laminates unsatisfactory for their intended purpose. I.e., they would not be able to maintain excellent gas barrier properties in the face of high heat and humidity. Therefore, as a matter of law the Examiner may not say that there is any suggestion or motivation to forego the heat treatment in Ohba.

On page 9 of the Office Action, the Examiner alleges that “Applicant’s claims only require that ‘said layer (bc)’ is formed without a heating operation, not that a heating operation can never be performed on the laminate.” The Examiner also alleges that claims 1 and 13 do not exclude heat treatment after formation because of the transitional phrase

“comprising.” Claims 1 and 13 have been amended to make it clear that the all components of the container are formed and otherwise made without a heating operation. Further, despite the use of the transitional phrase “comprising,” this limitation is required to be given substantive weight. Ignoring clear claim language such as the negative limitations of claims 1 and 13 is clearly not permitted as evidenced by a recent decision in the Federal Circuit. See, In re Robert Skvorecz (Fed. Cir. 2009), a copy of which is submitted with this response. “The protocol of giving claims their broadest reasonable interpretation during examination does not include giving claims a legally incorrect interpretation.” Id. Clearly, the claim must be interpreted as written. In this case, claims 1 and 13 claim a container where said layer (bc) and said multilayer sheet or said multilayer preform have not been subjected to a heating operation that facilitates esterification. Even with a “comprising” transitional phrase, this negative limitation would still have to be met. References that require a heat treatment step to facilitate esterification would therefore not meet this limitation as a matter of law.

Note that, “the heating operation” excluded in claims 1 and 13 is only the type of heating operation that would facilitate esterification of hydroxyl groups of the plasticiser (e) and carboxyl groups of the polycarboxylic acid-based polymer (B) in the layer (bc), causing esterification in layer (bc) and/or the multilayer sheet or the multilayer preform. The claims may still be open to the common heating steps required for stretching. However, this step requires a much lower heating than esterification - at about 100°C for several tens of seconds (for example, the process heated at about 100°C for about 10 seconds is employed in pet bottle molding and the like). One skilled in the art would know that this heating step is not able to facilitate the type of esterification discussed above and required by Ohba. Thus, it is apparent that claim 1 restricts the type of heating operation that causes esterification such as the one taught in Ohba, but is open to the less intense heating required for stretching.

Finally, claims 1 and 13 have been amended to require a container having excellent oxygen-gas barrier properties, leaving no doubt that the laminate of Ohba would have to be heat treated (and esterified) in order to attempt to obtain similar properties. However, heat-treated laminates taught by Ohba are not stretch-formable, as discussed below.

Once again, the Applicant asserts that heat treated laminates such as the one in Ohba are not stretch-formable. On page 10 of the Office Action, the Examiner requires an affidavit. However, the facts being represented are included in the specification (see pages 3-4 as filed), and are not arguments by counsel required to be supported by affidavit. Nevertheless, in order to expedite the prosecution of this application and satisfy the

Examiner's reservations, the Applicant provides with this response the aforementioned declaration. In this declaration, two experiments are described where two different films were made and heat treated according to Ohba. Neither film was able to be stretched. In fact, in Comparative Experiment 2, after attempting to stretch the film, the film cracked in addition to the oxygen permeability not being sufficient. This is clear and convincing proof of the Applicant's assertions.

Finally, with respect to paragraph 21 on page 9 of the Office Action, 1 MPa is equal to 9.87atm, and not 1atm as the Examiner alleges. This can be calculated and checked using any conversion tool, such as "http://www.unitconversion.org/unit_converter/pressure.html" or "<http://www.onlineconversion.com/pressure.htm>". Applicant refers the Examiner to the arguments presented on page 9 of the previous response.

In light of the amendments and arguments presented above, the Applicant asserts that the claims as amended are nonobvious over Ohba, and respectfully requests withdrawal of all rejections and allowance of all claims.

Conclusion

Based upon the foregoing remarks, Applicant respectfully requests reconsideration of this restriction requirement and early allowance of the pending claims. Should the Examiner feel that a telephone conference with Applicant's attorney would expedite prosecution of the application, the Examiner is urged to contact the undersigned attorney.

Respectfully submitted,

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